

REMARKS

Claims 1-20 were pending in this application.

Claims 1-20 have been rejected.

No claims have been amended.

Claim 21 has been added.

Claims 1-21 are now pending in this application.

Reconsideration and full allowance of Claims 1-21 are respectfully requested.

I. REJECTION UNDER 35 U.S.C. § 102

The Office Action rejects Claims 1-8 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,560,321 to Chen et al. ("*Chen*"). The Office Action rejects Claims 9-20 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,377,640 to Trans ("*Trans*"). The Applicants respectfully traverse this rejection.

A prior art reference anticipates the claimed invention under 35 U.S.C. § 102 only if every element of a claimed invention is identically shown in that single reference, arranged as they are in the claims. (*MPEP* § 2131; *In re Bond*, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990)). Anticipation is only shown where each and every limitation of the claimed invention is found in a single prior art reference. (*MPEP* § 2131; *In re Donohue*, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985)).

Regarding Claims 1-8, *Chen* recites a modem system that supports shorter startup times. (*Abstract*). When a session between two modems is being established, a training sequence is

communicated from one modem to the other. (*Abstract*). One way the startup time is reduced is by allowing the duration of the training sequence to be adjusted dynamically. (*Col. 4, Lines 17-21*).

Chen simply recites that the duration of a training sequence communicated between two modems may be adjusted. While *Chen* adjusts the duration of the training sequence, the Office Action has failed to show that *Chen* distributes the training sequence in an optimum manner. In fact, the Office Action has not cited any portion of *Chen* to show that *Chen* distributes the training sequence in any manner whatsoever.

Because the Office Action has not shown that *Chen* distributes the training sequence in any way (let alone in an optimum manner), the Office Action fails to show that *Chen* anticipates a “known symbol distribution controller” that is capable of inserting a plurality of known symbol clusters into an outgoing stream of unknown symbols in an “optimum distribution” as recited in Claim 1.

The Office Action also fails to establish that *Chen* anticipates the Applicants’ invention as recited in Claims 2-8 and 21. For example, Claim 3 recites that the “optimum distribution” is determined “according to a value of the channel order.” *Chen* recites that the duration of the training sequence may be based on at least one “characteristic” of a channel, such as whether a channel is “clean.” (*Col. 11, Lines 11-14 and 28-39*). However, *Chen* contains absolutely no mention that the “optimum distribution” of “known symbol clusters” is determined according to a “channel order” as recited in Claim 3.

In addition, as recited in new Claim 21, the “known symbol distribution controller” is

capable of inserting the plurality of known symbol clusters into a “plurality of positions” in the outgoing stream of unknown symbols. While *Chen* adjusts the duration of a training sequence, the Office Action fails to show that *Chen* anticipates inserting the training sequence into a “plurality of positions” in an “optimum distribution” as recited in Claim 21.

For these reasons, the Office Action fails to show that *Chen* anticipates the Applicants’ invention as recited in Claim 1 (and its dependent claims).

Regarding Claims 9-20, *Trans* recites that channels between nodes in a network are calibrated and optimized. (*Abstract*). A modulator is capable of adding a “channel coding preamble header” to a data stream, which “adds extra bits to the input data stream and remove redundant ones.” (*Col. 62, Lines 49-55*). The extra bits include, among other things, training sequences. (*Col. 62, Lines 55-57*).

Trans simply recites that additional bits may be added to a data stream, where the bits include training sequences. The Office Action has failed to show that *Trans* distributes the training sequence in an optimum manner. In fact, the Office Action has not cited any portion of *Trans* to show that *Trans* distributes the training sequence in any manner whatsoever.

Because the Office Action has not shown that *Trans* distributes the training sequence in any way (let alone in an optimum manner), the Office Action fails to show that *Trans* anticipates a “known symbol distribution controller” that is capable of inserting a plurality of known symbol clusters into an outgoing stream of unknown symbols in an “optimum distribution” as recited in Claims 9 and 17.

For these reasons, the Office Action fails to show that *Trans* anticipates the Applicants’

invention as recited in Claims 9 and 17 (and its dependent claims).

The Office Action also fails to establish that *Trans* anticipates the Applicants' invention as recited in Claims 10-16 and 18-20. For example, Claim 11 recites that the "optimum distribution" is determined "according to a value of the channel order." The cited portion of *Trans* simply states that training sequences are used "for identification or equalization." (*Col. 62, Lines 55-57*). The cited portion of *Trans* contains absolutely no mention that the "optimum distribution" of "known symbol clusters" is determined according to a "channel order" as recited in Claim 11.

Accordingly, the Applicants respectfully request withdrawal of the § 102 rejections and full allowance of Claims 1-20.

II. NEW CLAIM

The Applicants have added new Claim 21. The Applicants respectfully submit that no new matter has been added. The Applicants respectfully request entry and full allowance of Claim 21.

III. CONCLUSION

The Applicants respectfully assert that all pending claims in the application are in condition for allowance and respectfully request an early allowance of such claims.

SUMMARY

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@davismunck.com*.

The Applicants have included the appropriate fee to cover the cost of this AMENDMENT AND RESPONSE. The Commissioner is hereby authorized to charge any additional fees connected with this communication (including any extension of time fees) or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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